DOCUMENT RESUME

ED 368 496 PS 022 260

AUTHOR Melby, Janet N.
TITLE Family Context of Adolescent Academic Competence.
PUB DATE Mar 93
NOTE 9p.; Paper presented at the Biennial Meeting of the Society for Research in Child Development (New Orleans, LA, March 25-28, 1993).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150) -- Statistical Data (110)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Academic Achievement; *Adolescents; Child Rearing; Demography; Educational Attainment; *Fathers; Grade 7; Junior High Schools; *Mothers; Parent Child Relationship; *Parent Role; Predictor Variables; Sex Differences; Socioeconomic Background

ABSTRACT

This study examined the relationship between parental childrearing behaviors and adolescent academic competence in 393 seventh-graders from rural two-parent families with similar educational and economic backgrounds. Data was collected from school academic records, adolescent and parent questionnaires, and observer ratings. Results indicate that academic competence was negatively related to indicators of hostile or inconsistent parenting and positively related to nurturing and involvement indicators. Parent educational level was not significantly related to hostile or inconsistent parenting, but were related to all four of fathers' nurturing and involvement behaviors and to one of the mothers' nurturing and involvement behaviors. Demographic variables were not related to mothers' parental behaviors, but were related to many father parental behaviors. Consistent with previous findings, results support the importance of the relationship between parental behaviors and adolescent academic competence. Two figures and one table are attached. (MDM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 368 496

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

FAMILY CONTEXT OF ADOLESCENT ACADEMIC COMPETENCE

Janet N. Melby
Center for Family Research,
Iowa State University

Presented at the Biennial Meeting of the
Society for Research in Child Development
New Orleans, Louisiana, March 25-28, 1993

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Janet N. Melby
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Introduction

Several studies have examined relationships between parental behavior and adolescent competence (Dornbusch et al., 1987; Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Steinbert, Mounts, Lamborn, & Dornbusch, 1991). In general, findings show that adolescents whose parents were accepting, firm, and democratic scored higher on measures of academic competence. Many such past studies are limited by exclusive reliance on adolescent self-report data, which may produce dispositional biases, and by lack of distinctions between behaviors of mothers and fathers, which may distort unique differences due to gender effects.

This study extends previous work by using multiple informants and by analyzing data separately for mothers and fathers. We examine the relationship between parental childrearing behaviors and adolescent academic competence, controlling for the effects of demographic variables and parent educational values.

Method

The sample consisted of 393 seventh-graders from rural intact families and their parents. All completed questionnaires and participated in a videotaped family interaction task. Informants include adolescents, mothers, fathers, schools, and trained family interaction observers.

Measures of academic competence consisted of parent and adolescent reports of grades, school performance, receipt of a D or F grade, and ability to keep up with classes and school report of grades and the Iowa Test of Basic Skills. Parental childrearing behaviors were constructed from questionnaire responses of adolescent, parent, spouse, and from observer ratings. Nurturant/involved parenting included: (1) behavior tracking, (2) warmth/support, (3) standard setting, and (4) positive reinforcement. Hostile/inconsistent parenting included: (1) inconsistent discipline, (2) harsh discipline, and (3) hostility. A parental educational values scale was constructed from two questions: how important is it for your kids to study hard for good grades, and how important is it to have a college education. Demographic variables were family income for the past tax year, parental education, and household size.

Results

Using zero-order correlational findings, academic competence indicators were negatively related to indicators of hostile/inconsistent parenting indicators and positively related to nurturant/involved parenting indicators (see Table 1). Parental educational values were not significantly related to hostile/inconsistent parenting, but are significantly related to all four of fathers' nurturant/involved parenting behaviors and to one of mothers' (behavior tracking). Demographic variables were not related to mothers' parental behaviors, but for fathers, 10 out of 21 correlations were significant. Educational values were positively correlated with level of education for both parents and negatively related to household size for mothers, but not fathers.

PS 022260

BEST COPY AVAILABLE

Structural equation modeling was used to evaluate the conceptual model that, controlling for family income, parent's educational level, household size, and parent's values regarding education, nurturant/involved parental behaviors would positively relate to adolescent academic competence whereas hostile/inconsistent parental behaviors would negatively relate to adolescent academic competence. Separate analyses were performed based on parental gender and for each of the two parental behavior constructs. All measures were standardized and indicator mean scores were used in the formation of constructs used in the analyses.

As expected, results of structural equation modeling show adolescent academic competence to be related to nurturant/involved parenting by mothers (.39, $p < .01$) and by fathers (.28, $p < .01$) (see Figure 1). Likewise, adolescent academic competence was related to hostile/inconsistent parenting by mothers (-.40, $p < .01$) and by fathers (-.46, $p < .01$) (see Figure 2). The effect sizes for nurturant/involved and hostile/inconsistent behaviors were relatively parallel (though opposite) in models for mothers. However, in models for fathers the nurturant/involved parenting effect was smaller than that of hostile/inconsistent parenting. Demographic variables were related to parental behaviors for fathers but not mothers. Parent educational values were positively related to nurturant/involved parenting, but not to hostile/inconsistent parenting. Amount of explained variance for the four models ranged from 17% to 31%. Critical N levels (Hoelter, 1983) and the Goodness-of-Fit-Indices (Joreskog & Sorbom, 1989), suggest a reasonable fit for the models.

Conclusions

Consistent with previous findings, results support the importance of the relationship between parental behaviors and adolescent academic competence. An advantage of this study is the measurement of parental behaviors as perceived by multiple informants and the use of separate analyses for mothers and fathers. The findings are further strengthened by the use of controls for demographic characteristics and for parent educational values.

Subsequent analyses need to focus on whether or not these findings persist when academic competence is assessed at a later point in time.

References

Baumrind, D. (1978). Parental disciplinary patterns and social competence in children. Youth and Society, 9, 239-276.

Dornbusch, S.M., Ritter, P.L., Leiderman, P.H., Roberts, D.F., & Fraleigh, M.J. (1987). Child Development, 58, 1244-1257.

Hoelter, J. W. (1983). The analysis of covariance structures: Goodness of fit indices. Sociological Methods and Research, 11, 325-344.

Joreskog, K. G. & Sorbom, D., 1989. LISREL VII: User's reference guide (1st ed.). Mooresville, IN: Scientific Software.

Lamborn, S.D., Mounts, N.S., Steinberg, L., Dornbusch, S.M. (1991). Patterns of competence and adjustment among adolescents from authoritative, authoritarian, indulgent, and neglectful families. Child Development, 62, 1049-1065.

Maccoby, E., & Martin, J. (1983) Socialization in the context of the family: Parent-child interaction. In E.M. Hetherington (Ed.), P.H. Mussen (Series Ed.), Handbook of child psychology: Vol. 4. Socialization, personality, and social development (pp. 1-101). New York: Wiley.

Steinberg, L, Elmen, J.D., & Mounts, N.S. (1989). Authoritative parenting, psychosocial maturity, and academic success among adolescents. Child Development, 60, 1424-1436.

Steinberg, L., Mounts, N.S., Lamborn, S.D., & Dornbusch, S. (1991). Authoritative parenting and adolescent adjustment across varied ecological niches. Journal of Research on Adolescence, 1, 19-36.

Table 1. Zero order correlation matrix for study variables (N = 393)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	$\bar{x}$	SD
1. Inconsistent discipline		.40	.48	-.42	-.43	-.51	-.46	-.04	.02	-.13	-.04	-.20	.27	-.25	.07	2.52
2. Harsh discipline	.34		.52	-.20	-.35	-.33	-.34	-.09	.18	-.12	-.06	-.23	-.34	-.33	-.01	2.67
3. Hostility	.36	.48		-.36	-.54	-.41	-.49	-.15	.03	-.10	.00	-.26	-.39	-.36	.01	2.04
4. Behavior tracking	-.39	-.26	-.34		.58	.56	.66	.19	-.10	.12	.13	.18	.27	.25	.02	2.58
5. Warmth/Support	-.34	-.39	-.55	.51		.65	.72	.19	-.10	.07	.11	.16	.32	.28	.00	2.52
6. Standard setting	-.46	-.32	-.38	.55	.55		.58	.17	-.07	.08	.21	.13	.22	.17	.01	2.50
7. Positive reinforcement	-.43	-.41	-.45	.59	.68	.59		.17	-.17	.07	.11	.14	.29	.26	.03	2.19
8. Parent education level	-.06	.00	-.08	.06	.09	.07	.01		-.02	.24	.19	.26	.24	.24	13.45	2.12
9. Household size	-.02	.03	.02	-.05	-.08	-.05	-.09	.00		-.05	-.06	-.07	-.09	-.10	4.95	.98
10. Family income	-.07	-.07	-.07	.09	.06	.05	.06	.14	-.05		.09	.19	.15	.17	38,073	25,244
11. Parent education values	-.01	-.03	.03	.16	.08	.09	.09	.14	-.16	.08		.08	.15	.13	.00	.79
12. Academic achievement - school report	-.17	-.12	-.23	.28	.18	.21	.22	.16	-.07	.19	.06		.77	.70	.00	1.05
13. Academic achievement - parent report	-.24	-.16	-.31	.34	.27	.26	.32	.15	-.05	.16	.11	.78		.81	.02	.86
14. Academic achievement - adolescent report	-.18	-.20	-.30	.35	.33	.23	.34	.16	-.10	.17	.13	.70	.84		.01	.82
$\bar{x}$	.05	.01	.01	.02	.01	.02	.01	13.24	4.94	38073	.02	.00	.01	.01		
SD	2.49	2.53	2.05	2.41	2.45	2.51	2.07	3.12	.98	25244	.78	1.05	.89	.82		

Note: Coefficents above the diagonal are between variables for father; coefficients below the diagonal are between variables for mothers.
Underlined coefficients indicate correlations among measures within latent constructs.
Approximate probability levels for all correlations: $r > .11$, $p < .05$; $r > .14$, $p < .01$.

BEST COPY AVAILABLE

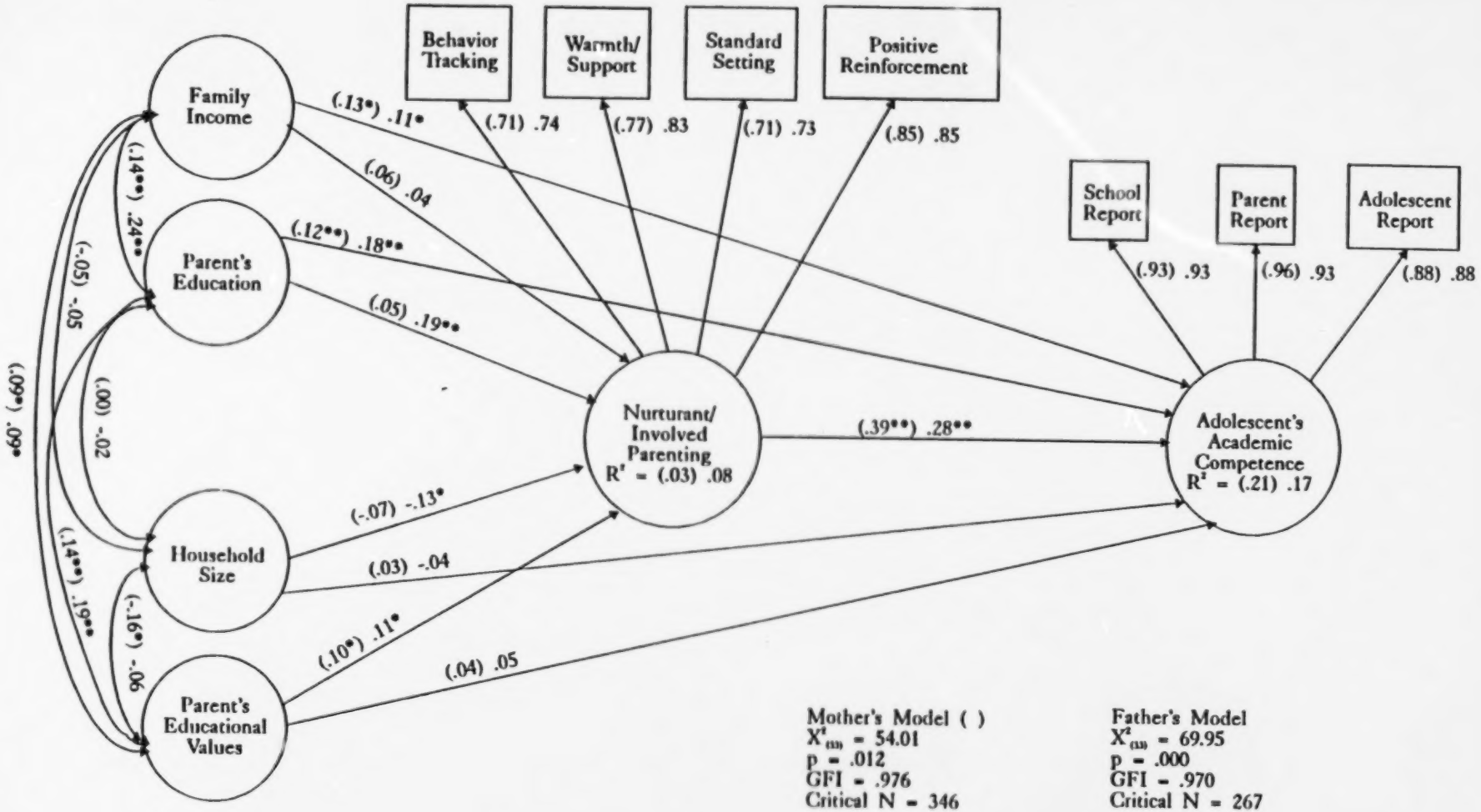

Figure 1. Influence of nurturant/involved parenting on adolescent academic competence. (Standardized coefficients *p<.05, **p<.01, n=393)

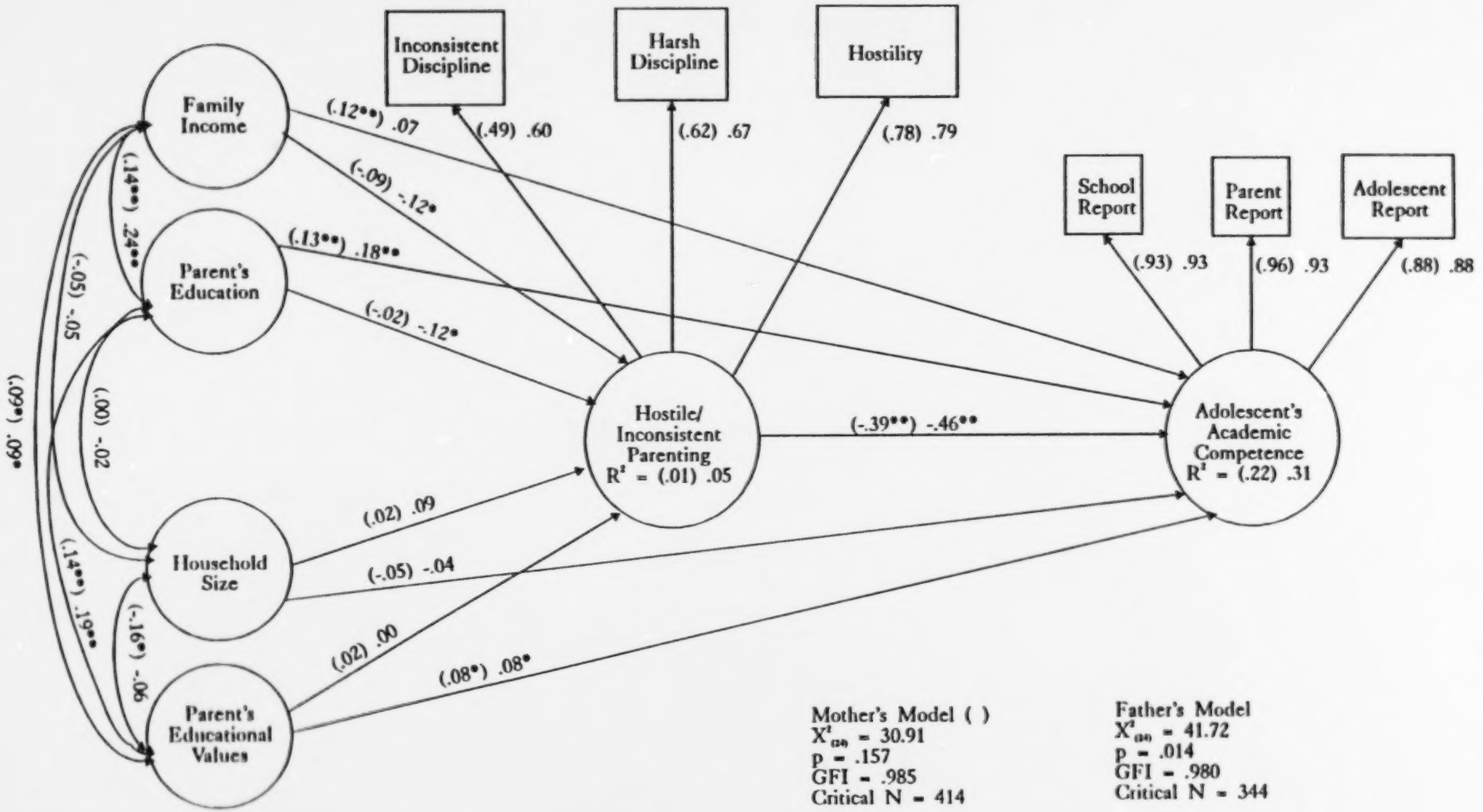

Figure 2. Influence of hostile/inconsistent parenting on adolescent academic competence. (Standardized coefficients •p<.05, ••p<.01, n=393)

BEST COPY AVAILABLE